

VULCAN

INSTALLATION & OPERATION MANUAL

GAS & ELECTRIC TILTING BRAISING PANS

MODEL

G30O	ML -52701
G30C	ML-52702
G40O	ML-52705
G40C	ML-52706
E30O	ML-52703
E30C	ML-52704
E40O	ML-52707
E40C	ML-52708



IMPORTANT FOR YOUR SAFETY

THIS MANUAL HAS BEEN PREPARED FOR PERSONNEL QUALIFIED TO INSTALL GAS EQUIPMENT, WHO SHOULD PERFORM THE INITIAL FIELD START-UP AND ADJUSTMENTS OF THE EQUIPMENT COVERED BY THIS MANUAL.

POST IN A PROMINENT LOCATION THE INSTRUCTIONS TO BE FOLLOWED IN THE EVENT THE SMELL OF GAS IS DETECTED. THIS INFORMATION CAN BE OBTAINED FROM THE LOCAL GAS SUPPLIER.

IMPORTANT

IN THE EVENT A GAS ODOR IS DETECTED, SHUT DOWN UNITS AT MAIN SHUTOFF VALVE AND CONTACT THE LOCAL GAS COMPANY OR GAS SUPPLIER FOR SERVICE.

FOR YOUR SAFETY

DO NOT STORE OR USE GASOLINE OR OTHER FLAMMABLE VAPORS OR LIQUIDS IN THE VICINITY OF THIS OR ANY OTHER APPLIANCE.

WARNING

IMPROPER INSTALLATION, ADJUSTMENT, ALTERATION, SERVICE OR MAINTENANCE CAN CAUSE PROPERTY DAMAGE, INJURY OR DEATH. READ THE INSTALLATION, OPERATING AND MAINTENANCE INSTRUCTIONS THOROUGHLY BEFORE INSTALLING OR SERVICING THIS EQUIPMENT.

IN THE EVENT OF A POWER FAILURE, DO NOT ATTEMPT TO OPERATE THIS DEVICE.

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Installation, Operation and Care of TILTING BRAISING PANS MODELS G300, G400, G30C, G40C, E300, E400, E30C, & E40C

KEEP THESE INSTRUCTIONS FOR FUTURE USE

GENERAL

Vulcan-Hart Tilting Braising Pans are available in two sizes. Models G30 and E30 have a 30-gallon capacity and Models G40 and E40 have a 40-gallon capacity. Models with a suffix of "0" have an open base and models with a suffix of "C" have a closed base.

The tilting braising pan is a versatile piece of equipment. It allows you to stew, simmer, pan fry, braise, grill or sauté, and all with a very uniform heat pattern.

Standard features on all models include a thermostat, manual timer, manual lift, stationary food pan support, and 6" legs (2 "bullet" feet and 2 flanged feet).

Optional features include a solid state thermostat, an electric timer, automatic power lift, hinged food pan support, casters or 6" legs with 4 flanged feet, and swivel faucet. Gas powered models may be ordered with an optional electronic ignition.

Your Vulcan braising pan is produced with quality workmanship and material. Proper installation, usage and maintenance will result in many years of satisfactory performance.

Vulcan-Hart Company suggests that you thoroughly read this entire manual and carefully follow all of the instructions provided.

INSTALLATION

Before installing, verify that the electrical service and gas supply (natural or propane) agree with the specifications on the rating plate located on the back of one of the front doors.

UNPACKING

This braising pan was carefully inspected before leaving the factory. The Transportation Company assumes full responsibility for safe delivery upon acceptance of this shipment.

Immediately after unpacking, check for possible shipping damage. If the tilting braising pan is found to be damaged, save the packaging material and contact the carrier within 15 days of delivery.

LOCATION

For Gas Powered Braising Pans Only

The braising pan must be kept free and clear of combustible substances. The braising pan, when installed, must have minimum clearance from combustible and non-combustible construction of 6" from the sides and 6" from the rear.

The installation location must allow adequate clearances for servicing and proper operation. Recommended clearances are 24" on the sides and back (for servicing), and 36" on the front. The ceiling should be at least 72" from the floor.

The braising pan must be installed so that the flow of combustion and ventilation air will not be obstructed. Adequate clearance for air openings into the combustion chamber must be provided. Make sure there is an adequate supply of air in the room suitable for the amount of combustion gas feeding the braising pan burners.

Do not permit fans to blow directly at the braising pan. Wherever possible, avoid open windows next to the braising pan. Avoid wall-type fans which create air cross currents within the room.

Braising Pans Equipped with Casters

If casters are assembled to the braising pan, the installation must be made using a connector (not supplied by Vulcan) that complies with the Standard for Connectors for Movable Gas Appliances, ANSI-Z21.69 (latest edition), and a quick-disconnect device that complies with the Standard for Quick-Disconnect Devices for Use With Gas Fuel, ANSI-Z21.41 (latest edition). Provide a restraining device for the gas line to limit movement of the braising pan without depending on the connector and/or any quick-disconnect device or its associated piping to limit braising pan movement. Attach the restraint at the rear of the braising pan (Fig. 1).

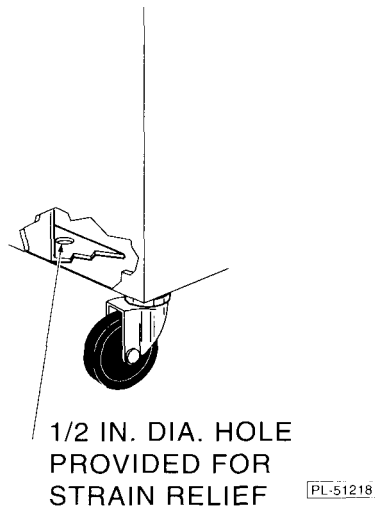


Fig. 1

If disconnection of the restraint is necessary, turn off the gas supply before disconnection. Reconnect this restraint prior to turning the gas supply on and returning the braising pan to its originally installed position.

INSTALLATION CODES AND STANDARDS

Your Vulcan Tilting Braising Pan must be installed in accordance with:

In the United States:

1. State and local codes, or in the absence of local codes, with:
2. National Fuel Gas Code, ANSI-Z223.1 (latest edition), available from the American Gas Association, Inc., 1515 Wilson Blvd., Arlington, VA 22209.
3. National Electrical code ANSI/NFPA-70 (latest edition).
4. ANSI NFPA Standard #96, "Vapor Removal from Cooking Equipment," (latest edition), available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

In Canada:

1. Local codes.
2. CAN/CGA-B149.1 Installation for Natural Gas Burning Appliances and Equipment.
3. CAN/CGA-B149.2 Installation for Propane Burning Appliances and Equipment, available from the Canadian Gas Association, 55 Scarsdale Road, Don Mills, Ontario, Canada M3B2R3.
4. Canadian Electrical Code Part 1 CSA-C22.1 (latest edition).

LEVELING AND ANCHORING TILTING BRAISING PAN

1. Place braising pan in the installation position.
2. Place a carpenter's level on top of the braising pan and turn the adjustable feet to level braising pan table top side-to-side and front-to-back. Do not attempt to level the braising pan clad plate.
3. Mark hole locations on the floor through the anchoring holes provided in the rear flanged adjustable feet.
4. Remove tilting braising pan from installation position and drill holes in locations marked on the floor. Insert proper anchoring devices (not supplied).
5. Place tilting braising pan back in the installation position.
6. Place carpenter's level on top of braising pan and re-level side-to-side and front-to-back.
7. Bolt and anchor tilting braising pan securely to the floor.
8. Seal bolts and flanged feet with silastic or equivalent compound.

SERVICE CONNECTIONS

To reach service and utility connections, remove the left side panel. To remove, hold the panel from underneath and lift it up. While holding the panel up, swing out the lower part of the panel until it clears the top flange and remove. If required, the rear panel and inner side panels (open base models only) can also be removed using the same procedure.

GAS CONNECTIONS (see Fig. 2)

All gas supply connections and any pipe joint compound used must be resistant to the action of propane gases.

Connect a 1/2" (nominal) gas supply to the braising pan. Recommended incoming gas line pressure is 7" W.C. (Water Column) for natural gas or 12" W.C. for propane gas. Make sure the pipes are clean and free of obstructions, dirt, and piping compound.

Codes require that a gas shutoff valve be installed in the gas line ahead of the tilting braising pan.

Natural gas and propane gas braising pans are equipped with fixed orifices and no adjustment is necessary. The orifices are set at 3.5" W.C. (Water Column) for natural gas, and 10" W.C. for propane gas.

WARNING: PRIOR TO LIGHTING, CHECK ALL JOINTS IN THE GAS SUPPLY LINE FOR LEAKS. USE SOAP AND WATER SOLUTION. DO NOT USE AN OPEN FLAME.

After piping has been checked for leaks, all piping receiving gas should be fully purged to remove air.

The electrical control circuit must be connected (see CONTROL CIRCUIT POWER CONNECTION) in this manual).

Testing the Gas Supply System

When test pressures exceed 1/2 psig (3.45 kPa), the tilting braising pan and its individual shutoff valve must be disconnected from the gas supply piping system.

When test pressures are 1/2 psig (3.45 kPa) or less, the tilting braising pan must be isolated from the gas supply system by closing its individual manual shutoff valve.

Flue Connections

DO NOT obstruct the flow of flue gases from the flue duct located on the rear of the tilting braising pan. It is recommended that the flue gases be ventilated to the outside of the building through a ventilation system installed by qualified personnel.

From the termination of the braising pan flue vent to the filters of the hood venting system, an 18" minimum clearance must be maintained.

Information on the construction and installation of ventilating hoods may be obtained from the standard for "Vapor Removal from Cooking Equipment," NFPA No. 96 (latest edition) available from the National Fire Protection Association, Batterymarch Park, Quincy, MA 02269.

INSTALLATION DIAGRAM — GAS HEAT BRAISING PANS

MODEL NO.	NATURAL GAS B.T.U./hr.	PROPANE GAS B.T.U./hr.
G-30-C	90,000	90,000
G-40-C	120,000	120,000

DIMENSIONS - INCHES				
Model No.	A	B	C	D
G-30-C	36	39 1/2	11 1/2	66
G-40-C	48	39 1/2	11 1/2	66

If 9" (229 mm) deep pan (total capacity 30 gallons) is specified on model G-23-C add 2" (51 mm) to dimensions "B", "C". and "D".

LEGEND

1. Electric connection 120 V 1-phase 50/60 Hz control circuit 300 watts maximum.
2. Gas connection 1/2" N.P.T.
3. (Optional extra) Hot and cold water connections if spray hose specified. (Connections are 1/2" N.P.T.)

DIMENSIONS - MILLIMETERS				
Model No.	A	B	C	D
G-30-C	914	1003	292	1676
G-40-C	121	1003	292	1676

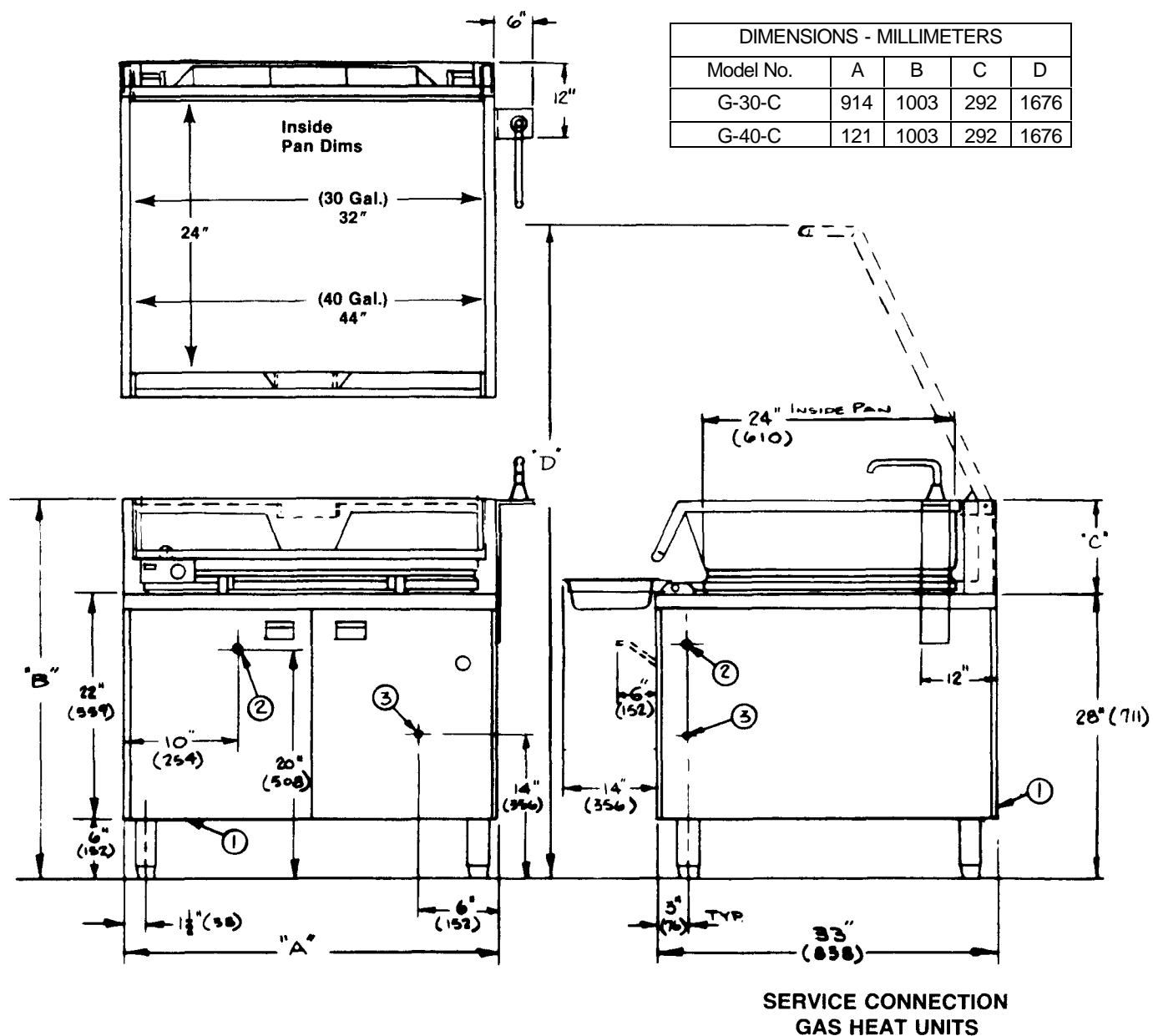


Fig. 2

ELECTRICAL CONNECTIONS (see Fig. 3)

WARNING: ELECTRICAL AND GROUNDING CONNECTIONS MUST COMPLY WITH THE NATIONAL ELECTRICAL CODE AND/OR OTHER LOCAL CODES.

WARNING: DISCONNECT THE ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH TO INDICATE THAT YOU ARE WORKING ON THE CIRCUIT.

The control box for field wire connection is located on the lower left side of the braising pan. A knockout hole is provided for a 1" conduit connection.

1. Remove the control box cover plate. Mount suitable 1" conduit fitting in knockout opening.
2. Connect field wire to the terminal block as indicated on the wiring diagram. The wiring diagram is located on the inside of the left door on closed base units and on the inside of the center door of open base units. Wire must be of the type suitable for 75°C service, and of thickness as indicated on marking next to junction box.
3. After making the connections, replace the control box cover plate.
4. The braising pan must be grounded by installing a ground lead, properly grounded, to the ground lug located inside the junction box.

ELECTRICAL DATA CHART

		E30C/0		E40C/0			
VOLTS	PHASE	K.W.	AMP	KW.	LX	LY	LZ
208	1	10.2	49	13.6	65	65	—
240	1	13.5	57	18.0	75	75	—
208	3	10.2	29	13.6	43	43	29
240	3	13.5	33	18.0	50	50	33
480	3	13.5	17	18.0	25	25	17

These values are nominal ratings. Field wire connections must be capable of withstanding anticipated surges.

CONTROL CIRCUIT POWER CONNECTION — All braising pans (see Fig's. 2 and 3)

WARNING: APPLIANCES EQUIPPED WITH A FLEXIBLE ELECTRIC SUPPLY CORD ARE PROVIDED WITH A THREE-PRONG GROUNDING PLUG. IT IS IMPERATIVE THAT THIS PLUG BE CONNECTED INTO A PROPERLY GROUNDED THREE-PRONG RECEPTACLE, IF THE RECEPTACLE IS NOT THE PROPER GROUNDING TYPE, CONTACT AN ELECTRICIAN. DO NOT REMOVE THE GROUNDING PRONG FROM THIS PLUG.

This connection is not required on braising pans equipped with the optional step down transformer.

Connect a 120 volt, 50/60 Hz, 1 phase supply to the pigtail leads in the junction box located on the rear left of the braising pan. Use copper wire suitable for 5 amperes and 75°C temperature. A ground wire must be connected to the ground lug in the junction box.

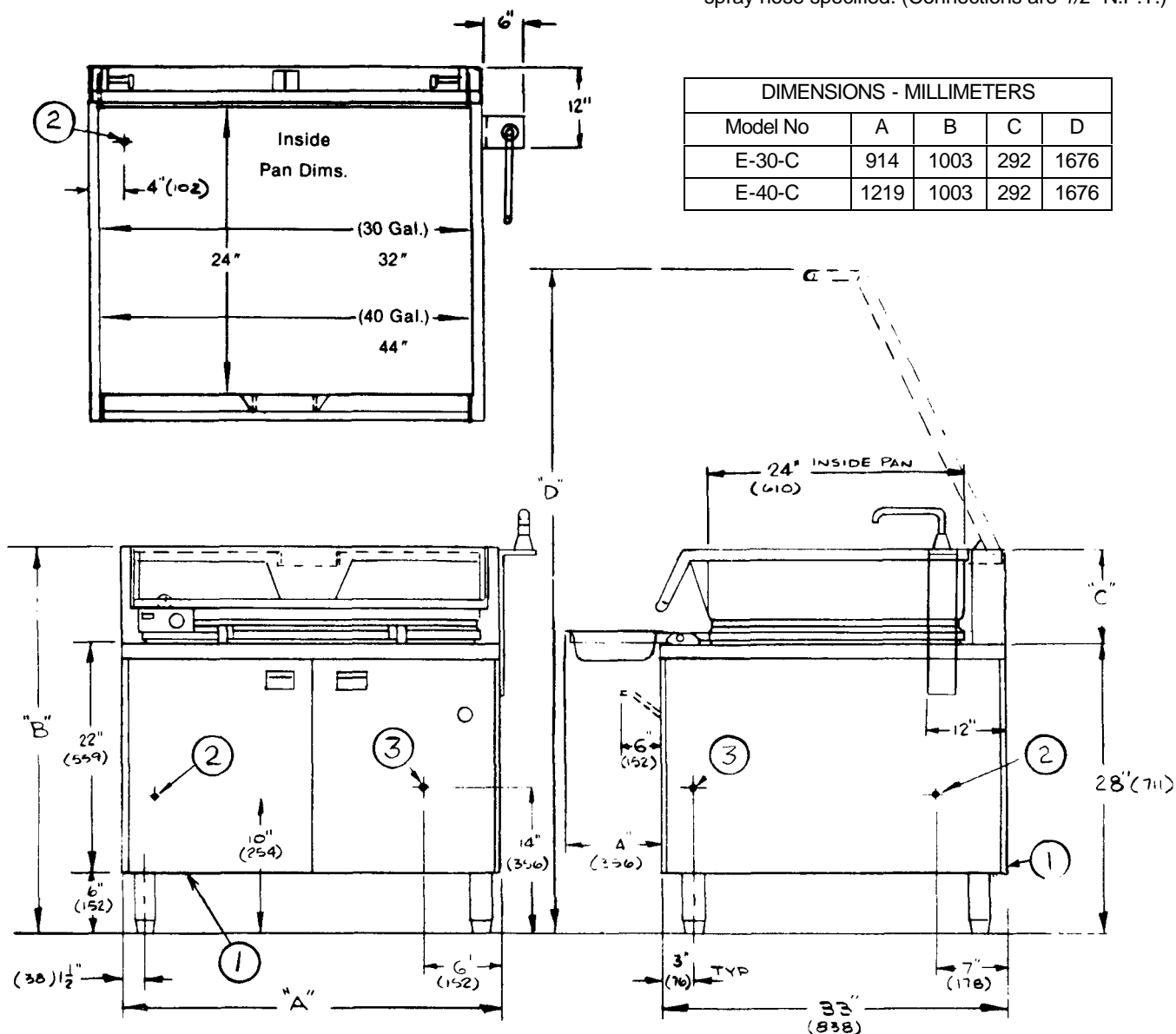
INSTALLATION DIAGRAM — ELECTRIC HEAT BRAISING PANS

DIMENSIONS - INCHES				
Model No.	A	B	C	D
E-30-C	36	39 1/2	11 1/2	66
E-40-C	48	39 1/2	11 1/2	66

If 9" (229 mm) deep pan (total capacity 30 gallons) is specified on model E-23-C add 2" (51 mm) to dimensions "B", "C", and "D".

LEGEND

1. Electric connection 120 V 1-phase 50/60 Hz control circuit with grounding wire required. (300 wans maximum) not required when step down transformer specified: (Optional extra).
2. Electrical power connection 1 3/8" diameter. (1" conduit)
3. (Optional extra) Hot and cold water connections if spray hose specified. (Connections are 1/2" N.P.T.)



**SERVICE CONNECTION
ELECTRIC HEAT UNITS**

OPERATION

WARNING: THE TILTING BRAISING PAN AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING OR SERVICING THE BRAISING PAN.

BEFORE FIRST USE

Using a non-corrosive, grease-dissolving commercial cleaner, clean the protective metal oils from all surface parts and the interior of the tilting braising pan. Follow the cleaner manufacturer's directions. Rinse thoroughly and drain the pan. Wipe dry with a soft clean cloth.

GAS HEAT BRAISING PANS

Controls

Thermostat	— Maintains set temperature by controlling power supply.
On/Off Switch (Red)	— Standard braising pans with thermostatic temperature control — located on a box on the lower left corner of the braising pan. Braising pans with optional solid state temperature control — located on a box underneath the table top and behind the left front door.
Pilot Switch	— (Optional) (Electronic Ignition Only.) When turned to ON, will initiate the electronic ignition system.

Lighting and Shutdown of Pilot — Standard Gas Braising Pan

Lighting instructions are also located on the back of one of the front doors.

1. Turn main gas supply to the braising pan ON at the shutoff valve.
2. To light the pilot, or to relight the pilot, turn thermostat and knob of combination control valve to OFF. Wait 5 minutes before relighting.
3. Turn knob of combination control valve to PILOT. Depress this knob and light the pilot using a taper. Pilot is located behind the hole identified with label "lighter and observation hole." Keep the knob depressed for about one minute after lighting the pilot.
4. If there is no ignition, or if the pilot does not stay lit, the pilot flame may need to be adjusted. Remove the cap covering the pilot adjustment screw on the combination control valve. Rotate exposed adjusting screw counterclockwise one full turn. Then replace cap and repeat steps 1 through 3 above.
5. After pilot is lit, turn the knob of the combination control valve to the ON position.
6. Turn the red On/Off switch to ON. The ON position is indicated by a glowing red light on the switch.

7. Lower the braising pan (see OPERATION OF LIFTING SYSTEM in this manual). The braising pan will not operate with the pan in the "up" position.
8. Turn the thermostat to the desired cooking temperature.

Complete Shutdown

1. Turn manual shutoff valve to OFF.
2. Turn thermostat and knob of combination control valve to OFF positions. Knob of combination control valve depresses slightly to turn to the off position.
3. Turn On/Off switch to OFF position.

Lighting and Shutdown of Pilot — Gas Braising Pan with Electronic Ignition

1. If pilot is out, turn pilot switch and thermostat of combination control valve to OFF.
2. Wait 5 minutes before attempting to relight.
3. Turn knob of combination control valve to ON.
4. Move pilot toggle switch to ON.
5. If no ignition, repeat steps 1 through 4 above.
6. If still no ignition, remove pilot adjustment cap from combination control valve and rotate exposed adjusting screw counterclockwise one full turn. Replace cap and repeat steps 1 through 5 above.

Complete Shutdown

1. Turn pilot switch, thermostat and knob of combination control valve to OFF.
2. Rotate pilot adjusting screw clockwise until pilot goes out.

Operation

The entire flue duct opening, located across the rear of the braising pan, must be left uncovered. If severe lifting of main burner flames is noted, the ventilator hood may be rated too high (C.F.M.). Contact your ventilator supplier and have them make the necessary adjustment.

Since all burners are lit from constantly burning pilots, turn the thermostat to the desired temperature to put the braising pan into operation.

To prevent discoloration of stainless steel cooking surface, do not turn the heat on unless the braising pan is covered with a fluid, a thin layer of cooking oil, or food to be cooked.

DO NOT use the braising pan as a **deep fat fryer**; use it only for shallow pan frying (cooking oil film not more than 1/8" thick). Its use for deep-frying could result in a fire hazard. See COOKING HINTS in this manual for additional information.

Do not overheat the clad stainless steel plate by setting the temperature well above recommended temperatures, or by operating the braising pan without any fluid inside the pan to absorb heat. Overheating the plate may cause warpage and will carbonize any cooking oil on the plate and cause sticking.

In case of a power failure, there will be no flames because the combination control valve will shut off the gas flow. Turn the On/Off switch to OFF. However, the pilot will stay on and the pilot can be left on during the power failure. When power is restored, it is not necessary to relight the pilot (if it was not turned off); just turn the On/Off switch to ON and resume cooking.

The lid is counterbalanced and will stay in any position at which it is placed. After some time, the counterbalancing springs may need to be tightened. Call your local Vulcan-authorized servicer to make these adjustments.

ELECTRIC HEAT BRAISING PANS

Controls

Thermostat	— Maintains set temperature by controlling power supply.
On/Off Switch (Red)	— Standard braising pans with thermostatic temperature control - located on a box on the lower left corner of the braising pan. Braising pans with optional solid state temperature control - located underneath the tabletop and behind the left front door.
Electric Timer Switch	— (Optional) Located underneath the table and behind the left front door. The switch is ON when the push button is pressed in and stays in.

Operation

Electrically heated braising pans do not require any adjustments before start-up.

Turn the red On/Off switch to ON. The ON position is indicated by a glowing red light on the switch.

Lower the braising pan (see OPERATION OF LIFTING SYSTEM in this manual). The braising pan will not operate with the pan in the "up" position.

Turn the thermostat to the desired cooking temperature.

To prevent discoloration of stainless steel cooking surface, do not turn the heat on unless the braising pan surface is covered with a fluid or a thin layer of cooking oil.

DO NOT use the braising pan as a **deep fat fryer**; use it only for shallow pan frying (cooking oil film not more than 1/8" thick). Its use for deep-frying could result in a fire hazard. See COOKING HINTS in this manual for additional information.

Do not overheat the clad stainless steel plate by setting the temperature well above recommended temperatures, or by operating the braising pan without any fluid inside the pan to absorb heat. Overheating the plate may cause warpage and will carbonize any cooking oil on the plate and cause sticking.

The lid is counterbalanced and will stay in any position at which it is placed. After some time, the counterbalancing springs may need to be tightened. Call your local Vulcan-authorized servicer to make these adjustments.

OPERATION OF LIFTING SYSTEM

Keep the area underneath and around the braising pan clear of your hands or any other objects when operating the lifting system.

Do not obstruct any of the moving parts of the lift system located underneath the table top on the right and/or left side of the braising pan. This area must be kept clear of any objects or obstructions at all times.

Do not operate the lifting system with front doors open (two doors on closed base unit, three doors on open base unit).

Do not leave the braising pan in the "up" position for extended periods (e.g., overnight or during a shutdown period between cooking times).

Braising Pans with Manual Lift (Standard)

1. The crank for the manual lift system is located on a hook on the inside of the front door. Open the door and lift out the crank.
2. Close all front doors.
3. There are two pins on one end of the crank. Insert the crank through the hole on the right door so that the two pins engage in the slots of the speed reducer coupling located behind the door.
4. Turn the crank handle clockwise to lift the braising pan and counterclockwise to lower the braising pan.
5. This lift system is not affected by power failure and can be operated during a power failure.
6. Refer to the MAINTENANCE section of this manual for lubrication and maintenance instructions.

Braising Pans with Automatic Power Lift (Optional)

The automatic lift cannot raise the braising pan unless the lid is fully opened.

The pan lift is controlled by the white rocker switch located in the hole on the right door.

1. Close all front doors.
2. Press the upper half of the rocker switch to raise the braising pan and the lower half of the rocker switch to lower the braising pan. The switch must be held for continuous raising or lowering of the braising pan.

In case of power failure, the power lift system cannot be operated. Leave the braising pan in whatever position it is in until the power is restored.

UNLOADING PREPARED FOODS

All braising pans are provided with a stationary support for holding a food receiving pan when unloading prepared foods.

To install the support, hold the front end with two hands and hook the tabs onto pins in the braising pan (Fig. 4). The support will accept food receiving pans of 12" x 20" up to 6" deep. Do not use pans greater than 6" deep.

If your braising pan is equipped with the optional hinged food receiving pan support, the mechanism of the support system will maintain the top edge of the receiving pan close (approximately 2") to the pouring lip.

To install and use this support, refer to Fig. 4 and follow instructions for installing the standard support above.

Both types of pan supports can be easily removed when not needed, for example, when cleaning the braising pan.



Fig. 4

STEAMING INSERTS (Optional)

Your tilting braising pan can be used for steaming frozen and fresh foods. The 30-gallon pans (Models E or G30) can be loaded with a maximum of two steaming pans, size 12" x 20" x 4" deep. The 40-gallon pan (Models E or G40) will accept up to three steam pans of this same size.

To use the braising pan for steaming, fill the pan with 6 to 7 gallons of water (approximately 2" deep) for 30-gallon models, and 8 to 9 gallons of water (approximately 2" deep) for 40-gallon models.

Turn the heat ON. Set the thermostat at 212°F. Allow the water to come to a boil. Then change the thermostat setting to 250°F and carefully place the steaming inserts into the pan as shown in Fig. 5. Close the lid and allow steaming for the desired time.

Periodically inspect the water level inside the braising pan. Add water if the water level is less than 1/2" deep.

To use the braising pan as a food warmer or bain marie, follow the same procedure as for steaming, but increase the depth of the water to allow the bottom and part of the sides of the steaming pans to be immersed in water. Set the thermostat for the holding or warming temperature desired.

When not in use, the steaming inserts can be stacked for easy storage.

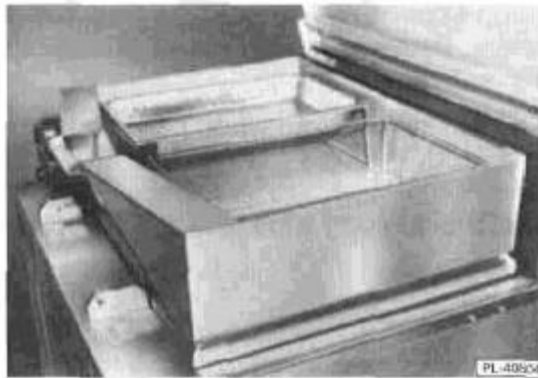


Fig. 5

COOKING HINTS

DO NOT use the braising pan for **deep fat frying**. Restrict frying activity to shallow pan-frying (oil film not more than 1/8" thick) or sautéing.

A tilting braising pan is quite versatile. It can be used for roasting, simmering, boiling, sautéing, searing, frying, warming, holding, proofing, thawing, browning, steaming, braising, griddling, or stewing. It can be used as an oversized skillet, as a bain marie, as a proofing oven, as a stock pot, as a kettle, or as an even heat range top. It can be used for cooking breakfasts, lunches, and dinners.

Your Vulcan tilting braising pan is a multi-purpose unit that can be used for virtually any type of cooking, except deep fat frying, with great speed, in large volume, and with considerable savings in labor and energy.

CLEANING

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY BEFORE CLEANING.

Clean your braising pan regularly. Keep the plate surface clean. To produce evenly cooked, perfectly braised products, keep pan surface free from carbonized grease. Carbonized grease on the surface hinders the transfer of heat from the pan surface to the food. This results in spotty browning and loss of cooking efficiency. Worst of all, carbonized grease tends to cling to the foods, giving them a highly unsatisfactory and unappetizing appearance.

After Each Use

Clean the pan surface with a wire brush or flexible spatula.

Once A Day

Thoroughly clean the back, sides and front of the pan. Also clean the inside and outside surfaces of the lid.

Once A Week

Clean the pan surface thoroughly. If necessary, use a griddle stone, wire brush or steel wool on the surface. Rub with the grain of the metal while still warm. A detergent may be used on the pan surface to help clean it, but be sure the detergent is thoroughly removed.

Clean other stainless steel surfaces with a damp cloth and polish with a soft dry cloth. To remove discolorations, use a non-abrasive cleaner. If the braising pan usage is very high, consider going through the "weekly" cleaning procedures more often than once a week.

When cleaning the braising pan, it is helpful to fill the pan with approximately 10 gallons of warm water and add detergent. After cleaning, raise the braising pan to drain all water (place a bucket or container under the pouring lip). Then repeat the procedures for rinsing with clean water.

Burners

Burner air shutter openings must be kept clean.

The main burner and runner burner ports must be kept clean. To clean burners, boil them in a strong solution of lye water for 15 to 20 minutes. Then either brush with a wire brush or clean gas ports with a sharp pointed metal instrument to ensure open ports.

COOKING GUIDELINES

The guidelines given below are suggested quantities, temperature settings, and **estimated** numbers of orders per load and per hour. When two temperatures are given, the first is to start the product, and the second to finish the product.

The following temperatures should be used:

	Temperature (°F)	Thermostat Setting
Simmering	200 Max.	1 -4
Sautéing	225 - 275	5-6
Searing	300 - 350	7-8
Frying	325 - 375	8-9
Grilling	350 - 450	9-10

ITEM	PORTION SIZE	TEMP. (°F)	BATCHES PER HOUR	G/E300/C PER LOAD QTY. PORTIONS	G/E400/C PER LOAD QTY. PORTIONS		
BREAKFAST FOODS							
Bacon	3 Slices	350	12	2 lb.	10	3 lb.	15
Eggs							
-Boiled-Hard	1 egg	225	5	50 eggs	50	75 eggs	75
-Boiled-Soft	1 egg	225	8	50 eggs	50	75 eggs	75
-Fried	1 egg	400	4	30 eggs	30	45 eggs	45
-Poached	1 egg	225	5	36 eggs	36	60 eggs	60
-Scrambled	1 1/2 eggs	300-200	1	18 gal.	720	28 gal.	1100
French Toast	3 slices	450	7	35 slices	12	50 slices	17
Regular Oatmeal	1/2 cup	250	2	20 lb (100 cups)	500	40 lb (200 cups)	1000
Pancakes	2 each	400	10	30 ea.	15	50 ea.	25
FISH							
Clams	1 pt.	400	10	10qts.	20	15qts.	30
Fish Cakes	2-3 oz.	400	5	70-3 02.	35	110-302.	55
Haddock Fillet	4 02.	400	4	60-4 02.	60	90-4 oz.	90
Halibut Steak	5 02.	450	3	60-4 oz.	60	90-4 02.	90
Lobster	1 -1#	350	4	20 - 1 lb.	20	30- 1 lb.	30
Swordfish	5 02.	450	3	50-5 oz.	50	75-5 02.	75
SAUCES, GRAVIES, SOUPS							
Brown Gravy	1 02.	350 - 200	2	18 gal.	2300	35 gal.	4500
Cream Sauce	202.	250- 175	1	18 gal. 1	150	35 gal.	2250
Cream Soup	6 02.	200	1	18 gal.	375	35 gal.	725
French Onion Soup	6 02.	225	1	18 gal.	350	35 gal.	700
Meat Sauce	4 02.	350 - 200	1	18 gal.	575	35 gal.	1100

ITEM	PORTION SIZE	TEMP. (°F)	BATCHES PER HOUR	G/E300/C PER LOAD QTY. PORTIONS	G/E400/C PER LOAD QTY. PORTIONS		
VEGETABLES							
CANNED	3 oz.	400	6	30 lb.	125	45 lb.	200
FRESH							
Beans, Wax, Green	3 oz.	400	3	25 lb.	125	50 lb.	250
Beets	3 oz.	400	1	30 lb.	125	60 lb.	300
Broccoli	3 oz.	400	3	25 lb.	125	40 lb.	200
Cabbage	3 oz.	400	5	20 lb.	80	30 lb.	125
Carrots	3 oz.	400	2	35 lb.	150	70 lb.	300
Cauliflower	3 oz.	250	5	15 lb.	75	25 lb.	125
Corn	1 Ear	400	8	50 ears	50	75 ears	75
Potatoes	3 oz.	400	2	40 lb.	200	60 lb.	300
Spinach	4 oz.	250	10	6 lb.	25	9 lb.	35
Turnips	4 oz.	400	2	20 lb.	100	30 lb.	150
FROZEN							
Beans, French Green	3 oz.	400	6	15 lb.	60	22 1/2 lb.	90
Lima Beans	3 oz.	250	4	15 lb.	60	22 1/2 lb.	90
Broccoli	3 oz.	400	8	12 lb.	50	18 lb.	75
Sliced Carrots	3 oz.	250	6	15 lb.	60	22 1/2 lb.	90
Small Whole Carrots	3 oz.	250	3	15 lb.	50	22 1/2 lb.	90
Corn	3 oz.	250	18	15 lb.	50	22 1/2 lb.	90
Small Whole Onions	3 oz.	250	7	15 lb.	50	22 1/2 lb.	90
Peas	3 oz.	400	10	15 lb.	75	22 1/2 lb.	110
Spinach	3 oz.	400	3	15 lb.	75	22 1/2 lb.	110
DESSERTS, PUDDINGS, SWEET SAUCES							
Butterscotch Sauce	1 oz.	200	1	18 gal.	2300	35 gal.	4500
Cherry Cobbler	3 oz.	200	1	18 gal.	750	35 gal.	1500
Chocolate Sauce	1 oz.	200	1	18 gal.	2300	35 gal.	4500
Cornstarch Pudding	4oz.	200	1	18 gal.	575	35 gal.	1100
Fruit Gelatin	3 oz.	250	2	18 gal.	750	35 gal.	1500
MEAT-POULTRY							
Bacon	3 Slices	350	12	2 lb.	10	3 lb.	15
BEEF							
Amer. Chop Suey	6 oz.	400 - 225	2	18 gal.	350	35 gal.	700
Beef Stew	8 oz.	300	—	18 gal.	280	35 gal.	560
Corned Beef Hash	5 oz.	400	5	16 lb.	50	25 lb.	75
Cheeseburger	3 oz.	300	12	7 lb.	35	10 lb.	50
Hamburger	3 oz.	300	15	7 lb.	35	10 lb.	50
Meatballs	1 oz.	400 - 225	3	12 1/2lb.	65	18 lb.	100
Pot Roast	2oz.	350 - 200		120 lb.	500	180 lb.	750
Salisbury Steak	5 oz.	400	3	16 lb.	50	24 lb.	75
Sirloin Steak	6 oz.	400	5	15 lb.	40	22 1/2 lb.	60
Swiss Steak	4 oz.	300 - 200	1	25 lb.	110	40 lb.	160

ITEM	PORTION SIZE	TEMP. (°F)	BATCHES PER HOUR	G/E300/C PER LOAD		G/E400/C PER LOAD	
QTY. PORTIONS							
CHICKEN							
Pan Fried	2 - 1/4's	350	3	50 pieces	25	80 pieces	40
Whole	2oz.	350 - 200		16-5 lb.	200	24-5 lb.	265
FRANKFURTERS							
Grilled	2oz.	300	8	22 lb.	176	33 lb.	264
Boiled	2oz.	250	12	16 lb.	128	25 lb.	200
PORK							
Ham Steak	3 oz.	400	8	10 lb.	50	15 lb.	75
Pork Chops	5 oz.	350	4	15 lb.	50	25 lb.	75
Sausage Links							
	3 links	350	7	30 lb.	120	45 lb.	180
TURKEY							
Off Carcass	2oz.	400 - 200	—	3 26-30 lb.	200	4 26-30 lb.	275
On Carcass	2 oz.	400 - 200	—	4 16-20 lb.	175	6 16-20 lb.	265
MISCELLANEOUS							
Grilled Cheese Sandwich	1 sand.	400	8	35 sand.	35	50 sand.	50
Macaroni & Cheese	8 oz.	200	2	18 gal.	300	35 gal.	525
Rice	4 oz.	350 - 225	1	20 lb. raw	320	40 lb. raw	650
Spaghetti	4 oz.	350 - 225	2	8 lb. raw	200	12 lb. raw	300

MAINTENANCE

WARNING: THE TILTING BRAISING PAN AND ITS PARTS ARE HOT. USE CARE WHEN OPERATING, CLEANING OR SERVICING THE BRAISING PAN.

WARNING: DISCONNECT ELECTRICAL POWER SUPPLY AND PLACE A TAG AT THE DISCONNECT SWITCH TO INDICATE THAT YOU ARE WORKING ON THE CIRCUIT BEFORE PERFORMING ANY MAINTENANCE.

LUBRICATION

Lid Mechanism

The lid lift mechanism and tension spring are located behind the shroud (sheet metal panel behind the braising pan) on both the left and right rear corners of the braising pan.

For smooth operation of the lid, lubricate this mechanism with 8 to 10 drops of lubricating machine oil every 6 months. Place a few drops of oil between the lid arm and stationary block, and a few drops on the shaft around which the spring is coiled.

Manual Lift

The gear reducer oil must be replaced after one year of operation, and every two years after that.

1. The gear reducer is mounted behind the right door and underneath the table top.
2. Unscrew the drain plug on the bottom of the reducer and drain all oil.
3. Close the drain hole by tightening the drain plug in place.
4. Open the fill plug located on top of the gear reducer.
5. Fill with SAE 40 weight oil of "Gear Lube" quality (approximately 1 pint).

Every 6 months, lubricate the lifting system parts (sprockets, chain, lift arm pivot, etc.) with lubricating machine oil. Also lubricate the pin where the lift arm is attached to the bottom of the braising pan plate.

The two bearings at the lower end of the lift mechanism are lubricated for life and do not require periodic lubrication.

Automatic Power Lift (Optional)

Lubricate the pin where the lift arm is attached to the bottom of the braising pan plate with lubricating machine oil every six months.

All other parts of the power lift system are lubricated for life and do not require periodic maintenance.

Door Hinges

Lubricate the front door hinges with a silicone spray lubricant every 6 months. Spray the lubricant on the hinge pin at the top and bottom of all front doors.

ADJUSTMENTS

At least twice a year, have a Vulcan-Hart authorized service person clean and adjust the tilting braising pan for maximum performance.

VENT

When cool, annually check the ventilation system. Clean the system of any grease build-up or other obstructions that can affect the flow of the flue gases from the braising pan.

SERVICE AND PARTS INFORMATION

To obtain service and parts information concerning the tilting braising pan, contact the Vulcan-Hart Service Agency in your area (refer to listing supplied with the braising pan), or Vulcan-Hart Company Service Department at the address or phone number shown on the front cover of this manual.

TROUBLESHOOTING

GAS HEAT BRAISING PANS

PROBLEM	POSSIBLE CAUSES
Burners do not come on.	<ol style="list-style-type: none">1. Gas supply to braising pan is OFF.2. Manual gas shutoff valve is OFF.3. Thermostat is not turned ON.4. Pan is not in lowest position.5. Problem with the burners. Contact your Vulcan-Hart authorized servicer.
Burners produce carbon deposits.	<ol style="list-style-type: none">1. Wrong size orifices.2. Burner air not adjusted properly.3. Wrong gas supply,4. Incorrect pressure at supply.

ELECTRIC HEAT BRAISING PANS

PROBLEM	POSSIBLE CAUSES
Heating elements do not come on.	<ol style="list-style-type: none">1. Thermostat is not turned ON.2. Blown fuse in main electrical panel.3. Pan is not in lowest position.4. Problem with the heating elements. Contact your Vulcan-Hart authorized servicer.